

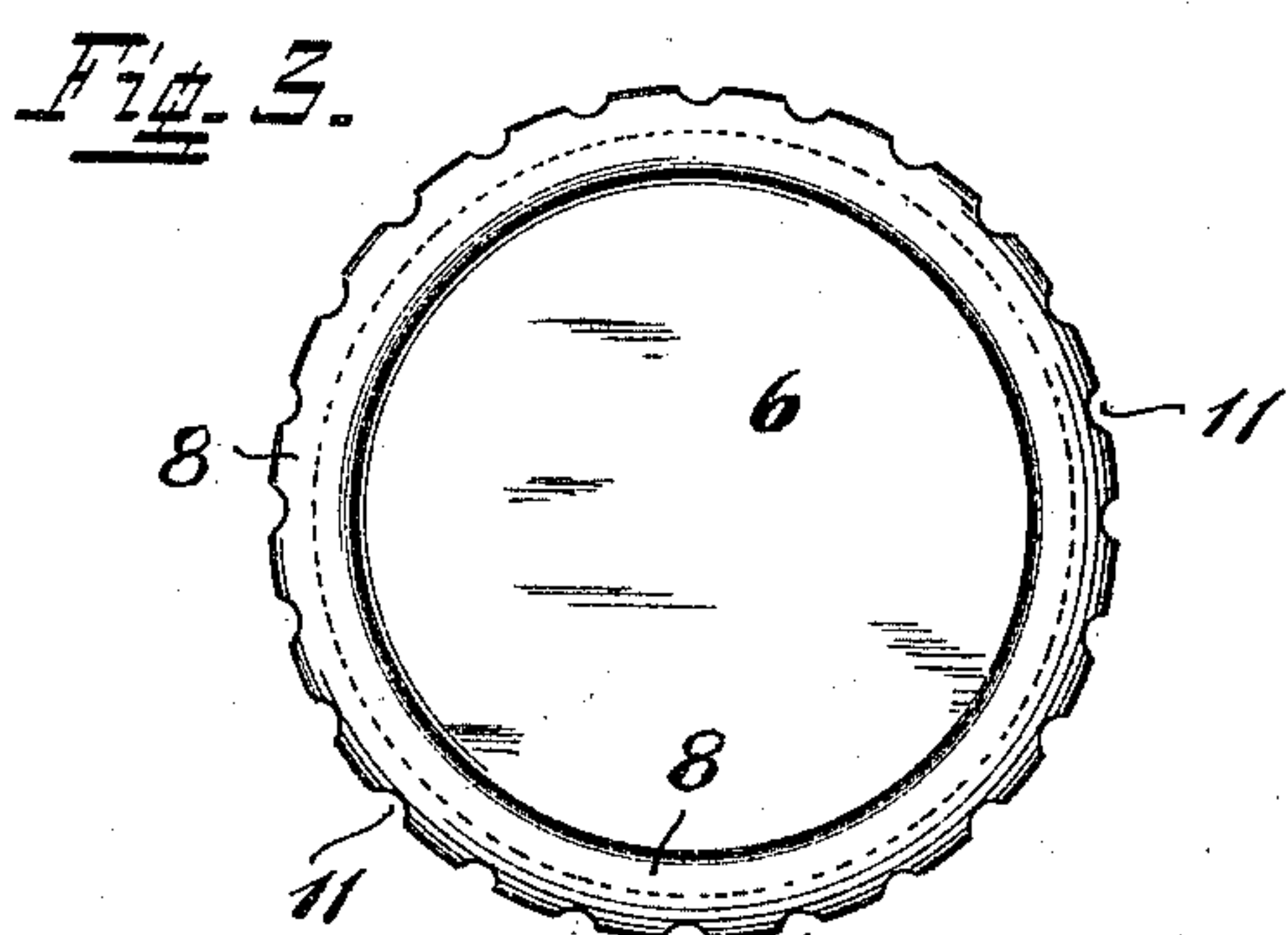
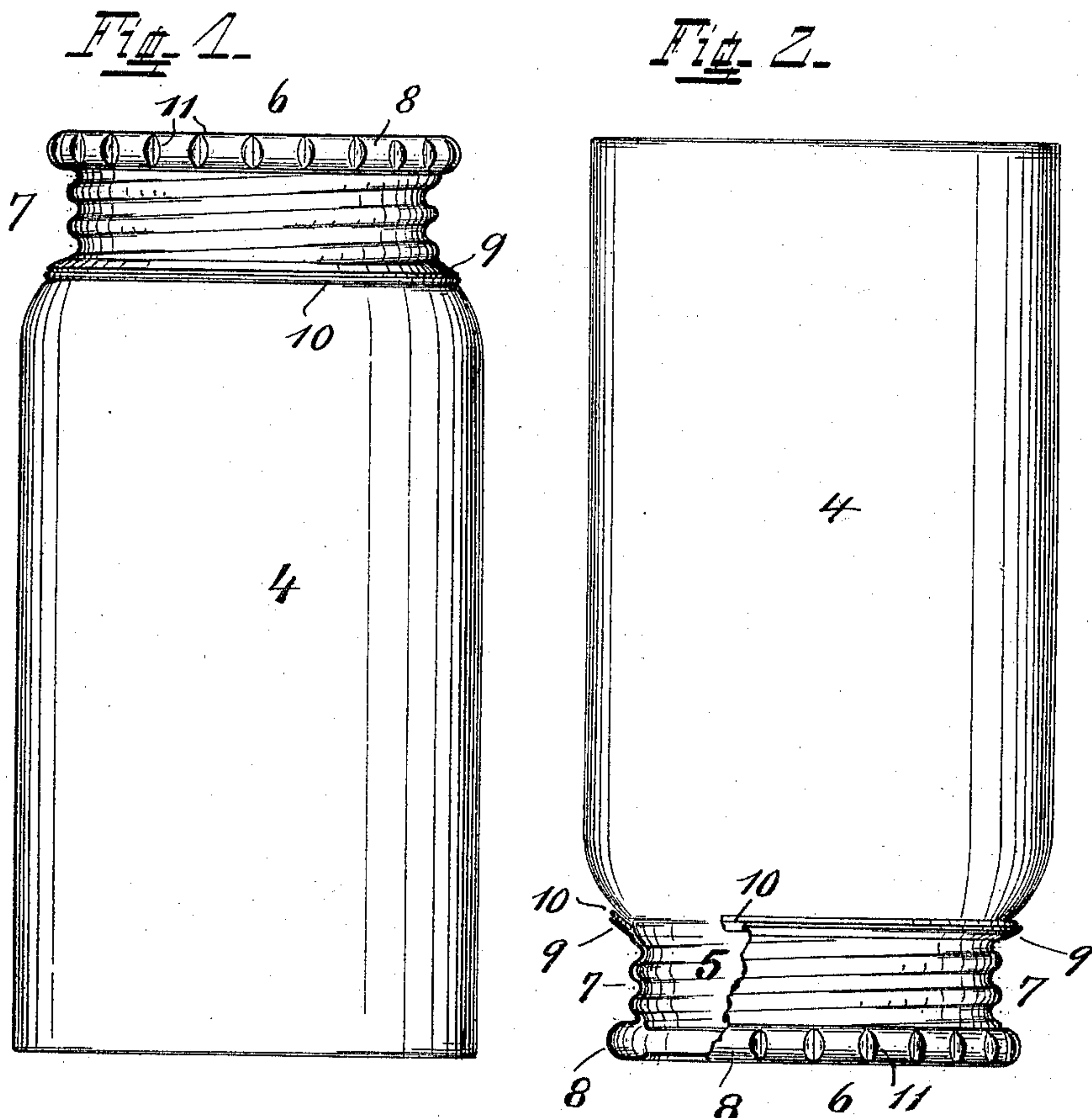
No. 638,317.

H. F. BROCKMANN.
SCREW CAP.

Patented Dec. 5, 1899.

(Application filed June 19, 1899.)

(No Model.)



Attest
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UNITED STATES PATENT OFFICE.

HENRY F. BROCKMANN, OF CINCINNATI, OHIO, ASSIGNOR TO THE WILLIAM GLENNY GLASS COMPANY, OF SAME PLACE.

SCREW-CAP.

SPECIFICATION forming part of Letters Patent No. 638,317, dated December 5, 1899.

Application filed June 19, 1899. Serial No. 721,015. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. BROCKMANN, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Screw-Caps; and I do declare that the following is a description thereof so clear, full, and exact as to enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form a part of this specification.

This invention relates to improvements in caps used for closing the mouths or other openings of vessels and where such caps are held in position by a screw-thread provided thereon and engaging a similar thread around the openings to which the caps are fitted.

It relates more particularly to such caps which are manufactured of sheet metal and used in connection with vessels intended for household purposes. A vessel of this kind is found in the well-known jar used for preserving fruits and having its fill-opening surrounded by a screw-threaded neck, which is closed by a sheet-metal cap having a similar thread. The removal of these caps becomes often quite difficult owing to the fact that the smooth metal interferes with obtaining a tight grip on them. The thread frequently binds and sticks and does not work freely on account of the cap having lost its true shape due to excessive pressure resorted to in order to loosen and start it when it refuses to work freely under circumstances as above outlined.

The object of my invention is, therefore, to obviate these difficulties, and I attain such by a certain construction, as illustrated and hereinafter described, whereby these caps are strengthened to an extent which precludes all possibility of injury by twisting them out of shape in case excessive pressure is applied. At the same time this construction is such, however, as to render the use of excessive pressure entirely unnecessary inasmuch as it affords assistance in the manipulation of the cap, which permits its removal or screwing

home to be accomplished in the most convenient manner and without any undue exertion.

In the following specification, and particularly pointed out in the claim at the end thereof, is found a complete description of my invention, together with its operation, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 shows in elevation a suitable vessel or jar closed by means of one of my improved screw-caps. Fig. 2 shows in a similar view the same vessel in inverted position and with parts of the cap broken away. Fig. 3 is a top view of the cap.

Numeral 4 indicates the body of a suitable vessel or jar provided with a fill-opening in its top, which is surrounded by a neck 5, having a continuous screw-thread. For closing this opening there is a cap 6, the side 7 of which is fitted over neck 5 and correspondingly threaded. The pressure exerted during manipulation of the cap causes this screw-threaded portion to frequently lose its true circular shape, after which the cap works hard and often sticks. The resistance thus presented leads to increased efforts accompanied by excessive strains, which only aggravate the deleterious effects upon the shape of the cap. To prevent any strains, and particularly such resulting through rough usage, from injuriously affecting the shape of the cap, the same is stiffened by lateral projections provided all around at the lower and upper edges of side 7. Of these projections it is particularly the one at the upper edge, where the top of the cap joins side 7, which is of importance, and consists of an outwardly-curved annular bead 8, which projects clear beyond the plane of the side of the cap. At the lower edge of the side it is the customary flange 9, by which the cap is seated against the shoulder of the vessel, with a washer 10 interposed between. It will thus be seen that the screw-threaded part of the cap between flange 9 and bead 8 is well stiffened by them, while this latter being at the point where side and top of the cap merge into one is in a position where the

benefit of its strengthening influence extends over the whole cap. At the same time this bead, projecting, as it does, beyond the outlines of the cap, forms practically a knob for this latter, which may be well and fully taken hold of and affords a generous grip when manipulating the cap for removal or for placing it in position. Its usefulness as a knob is increased by providing it with corrugations or suitable depressions—as, for instance, notches 11. Thus fitted out, the cap may be manipulated in the most convenient manner and without ever requiring use of excessive efforts, the strain and pressure from which are liable to injure the cap by twisting it out of shape.

The cap, as shown, is to be constructed out of one piece of sheet metal, which contains all the parts described. Bead 8 by projecting also above the top of the cap furnishes a secure supporting-base for the vessels to rest on in case they are placed in an inverted position, as is frequently the case with fruit-

jars, which are placed in such a position in order to obtain a joint which seals the jar airtight. (See Fig. 2.)

Having described my invention, I claim as new—

A screw-cap consisting of a top and a side, both integrally connected and the latter being provided with a continuous screw-thread adapted to engage a similar thread, an annular flange 9, projecting from the bottom edge of the cap, an annular bead 8, projecting at a point where side and top merge into one, all these parts being contained in one piece of metal out of which the whole cap is formed, bead 8 being pressed outwardly therefrom and provided with countersunk depressions.

In testimony whereof I hereunto set my hand in presence of two witnesses.

HENRY F. BROCKMANN.

Witnesses:

A. C. MACDONALD,
L. E. VAN NOSTRAN.